**Supplemental Digital Content 1:** Standardized physical examination before extubation in a cohort of 437 severe brain-injured patients (translated from French to English). Physical examination was performed by the patient’s attending physician.

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| What was the duration of spontaneous breathing on a T-tube in the 24 hours before extubation (hours)? | ………… (hour) |
| Did the staff perform fewer than 2 endotracheal suctioning sessions per hour in the 3 hours before extubation? | Yes ☐ / No ☐ |
| Was a leak test performed?If so, presence of a leak? | Yes ☐ / No ☐Yes ☐ / No ☐ |
| Evaluation of the Coma Glasgow Score in intubated patientsEvaluation protocol:E: 4 if the patient’s eyes are open without any contactV: 1 in the setting of absence of response to painful stimuli, no attempt at communication V: 4 in case the patient makes obvious communication responses, makes head responses to simple questions | Total score: E:V:M: |
| Does the patient have positive answers to simple questions (ex: shake/non-shake hand, moving legs to orders…)? | Yes ☐ / No ☐ |
| Does the patient have visual pursuit: Is the patient able to follow a member of the staff in his/her room with his gaze or a moving item such as a pencil, light in front of his face?  | Yes ☐ / No ☐ |
| Appreciation of coughPresence of cough spontaneously, without endotracheal suctioningPresence of cough only in the presence of suctioning | Spontaneous ☐After endotracheal suctioning ☐None ☐ |
| Does the patient display obvious cricoid and/or thyroid cartilage movements compatible with swallowing attempts? | Spontaneously ☐On demand ☐None ☐ |
| Appreciation of the pharyngeal amount of saliva:Does the patient have a large amount of saliva requiring at least 2 buccal aspirations and/or 2 neck/facial nursing and cleaning per hour?  | Yes ☐ / No ☐ |
| Did the patient experience exteriorized vomiting in the previous 24 hours? | Yes ☐ / No ☐ |
| Does the patient display constipation ≥ 5 days? | Yes ☐ / No ☐ |
| Is the patient hypotonic?Defined as the impossibility to lift a limb from the bed, supposedly unimpaired from brain-injury | Yes ☐ / No ☐ |
| Is the patient confused?Defined as the existence of inadequate movements, not accessible to orders or communication | Yes ☐ / No ☐ |
| Is the patient agitated?Defined as the existence of self-aggressive behavior (tries to rip out central venous catheter, gets out of the bed) and requires physical restraint | Yes ☐ / No ☐ |
| Does the patient spontaneously try to rip the endotracheal tube out? | Yes ☐ / No ☐ |
| Does the patient receive any of the following medications:NeurolepticsBenzodiazepinesMorphine Corticosteroids (in case of existing/supposed laryngeal edema) | Yes ☐ / No ☐Yes ☐ / No ☐Yes ☐ / No ☐Yes ☐ / No ☐ |